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Guidelines to aid attendants to maintain good dental health among institutionalized mentally retarded persons are presented. Aspects considered include reasons for taking care of the mouth and means of adapting the oral hygiene program to each individual. Also described are oral hygiene programs now existing in group living settings and methods of recognizing special mouth problems. Appendixes list sources for additional readings and materials, and present sutdy questions with their answers. (LE)

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DENTAL HEALTH FOR THE HANDICAPPED

Prepared by

Dental Advisory Committee
Staff Development Project

University of Alabama in Birmingham
Birmingham, Alabama 35233

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"And so I talk with them

And touch them with my softest hand,

So they will understand."

From The Sparrow Bush,

By Elizabeth Coatsworth*

*Norton Publishing Company

63 pages, 1966.

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Contributors

Gerard J. Bensberg, Ph. D., Project Director, Staff Development Project, and Associate Director, Center for Developmental and Learning Disorders, University of Alabama in Birmingham, Birmingham, Alabama

William Cole, B. S., D. D. S., Director of Dental Services, Partlow State School, Tuscaloosa, Alabama

Mrs. Bertha S. Corr, B.S.R.N., Director of Nursing Services, Lynchburg Training School and Hospital, Lynchburg, Virginia.

Jack A. Menius, D.D.S., M.S.D., Director of Dental Services, Murdoch Center, Butner, North Carolina.

William C. Sellingsloh, B.S., D.D.S., Director of Dental Services, Travis State School, Austin, Texas.

Joseph M. Sim, D.D.S., M.S.D., Director, Dental Clinic, Children's Hospital and Assistant Professor of Pedodontics, University of Alabama Dental College, Birmingham, Alabama

Acknowledgements

INTRODUCTION

Dental Health for the handicapped has been a difficult subject to sell the professional person as well as the layman. Unless you are a handicapped person yourself, or the parent of a handicapped child, you are not likely to be aware of the many problems associated with obtaining dental care and in maintaining proper care of the teeth and gums. As an "outsider" we don't appreciate the pain a neglected cavity can cause nor, or we apt to realize, how an attractive smile and sweet breath can help a handicapped person sell himself.

The manual, Dental Health for the Mentally Retarded, was developed in response to the interest and concern expressed by dentists who staff the residential facilities for the mentally retarded in the 15 state region served by the Southern Regional Education Board.[1] It is primarily intended to be used by the cottage or ward personnel who have responsibility for the daily oral care of the retarded who reside on their units. Supervisors and instructors in inservice training programs may want to utilize this manual as an additional resource. The term used for ward personnel varies from state to state. Some of those more commonly used are attendant, cottage parent, nurses aide, psychiatric aide and matron. We will use the term attendant here, although it doesn't reflect his true role as a parent substitute. Even though the orientation is toward the residential facility and the attendant, we do hope that parents and workers in day care centers as well as dental staff will find this guide of value. The term used to describe the retarded living in residential facilities also varies and includes such names as patient,

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[1]The Southern Regional Education Board is an interstate compact agency serving Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia.

student, and resident. We shall use the term resident to refer particularly to the institutionalized retarded person.

The important role of the attendant in oral hygiene was clearly indicated at two dental conferences. One of these was held at the University of Texas Dental Branch in 1966 and another at the University of Alabama Dental School in 1967. These dentists realized the need to work more closely with ward personnel in order that together they could be more efficient and effective in providing good dental care. These dentists as well as other staff members serve as dental advisors for more than ten thousand mentally retarded. The suggestions which they offered have been included in this guide.

Many institutions have inservice training programs for the attendant. It is hoped that this guide might be of value as one of the resources for study. We all realize that without proper study and encouragement to put these principles into practice, the efforts of the committee which prepared this guide will not be fully relized.

This guide will emphasize the vital importance of healthy teeth and gums of the retarded persons. It will provide a program for the inquiring attendant which will help bring new ideas in maintaining the oral health of their children and adults, both on an individual basis and in the day-to-day routing of ward group life.

This concept of better dental health care for these residents is already being carried out in many of our public institutions which this manual will reach. Understandably, in some institutions the level of oral health care is better than others. By adding up all the good approaches and selecting the best ones, it is hoped that all the mentally retarded children will benefit.

Although this book is primarily to be used as a guide for attendants, the dentists who advise them in the resident programs may also be interested in supervising certain parts of a cottage care program. However, it is for the attendants themselves that we have left a series of blank pages labeled "notes". Here, it is hoped, the truly interested attendant might jot down some new ideas for training aids in group dental care as they come to mind in the cottage or ward. These notes could be shown to the institutional dentist when he next made his rounds of the cottages, and whenever possible, the new ideas could be used in the oral health program. In time, these ideas would find themselves on the pages of such a manual as this.

Once a good ward oral hygiene program is established and operating, it is of utmost importance to keep this program on a high level. The attendant should have continuing supervision and be complimented on a good job. If improvements should be made, these should be suggested. Frequent visits by the dentist and supervisors will help to motivate the residents to do a better and better job. Sometimes a reward is helpful. This can be as little as extra free time. Written correspondence does a lot to make the attendant more aware of what is being done for the resident. The attendant should know what the dentist is planning for a resident, especially if he was the one who requested the resident be seen in the dental clinic. If an attendant is doing a good or a poor job, the dentist or supervisor should notify him so that he may either be praised or asked to improve. However, we believe that the most important single event in improving oral hygiene is a face-to-face meeting of the attendant and the dentist to discuss problems. Without the cooperation of all, an oral hygiene program will not be successful.

So, as this manual is read, it must be remembered that it is to be used as a guide only on the path to better dental health for our retarded residents. If attendants who read this find they have better ways of caring for the oral problems of their residents, the people who contributed to this manual are eager to learn of their ideas.

CHAPTER ONE:

WHY PROVIDE ORAL CARE FOR THE MENTALLY RETARDED?

The mentally retarded have the same human needs as other people. They have needs for such things as food and shelter, as well as training and education. Above all they need acceptance and helpful attention from other interested and concerned people.

They have a similar need for security as do all of the rest of us. The hunger for this security serves to place before all attendants a series of challenges, and at the same time, a series of problems. Confidence for these children, in facing new situations must come by a series of steps. In the case of the mentally retarded residents, these cannot be large steps, but must be broken down, made simpler, easier to understand, and easier to put into practice.

With each success comes confidence, and as confidence in their abilities grows, many of the problems of these children disappear.

The health of their bodies, or, as good a state of health as their condition permits, should be maintained. Not only is it their right to have the highest level of health we can provide for them, but their health gives them a greater inner security, and this helps them in their day to day social environments.

What does a healthy mouth do?

Basic to vital healthy life is the ability to properly chew and enjoy food. With retarded children, this enjoyment is seemingly increased. Per-

haps the retarded person, faltering in his drive to security in his relationships with his fellow residents and his attendants, turns back into himself to achieve certain pleasures. Chewing food, gum, paper, biting nails, or sucking fingers or thumbs may be a part of this search for satisfaction of his oral needs.

Whatever the reason, many people have noticed that the "sense of oral pleasure" is apparently present even among the severely retarded. It may be that the severely retarded child is more like an infant in that his mouth assumes a much greater importance for him. Consequently, we may note tendencies toward sucking, babbling, drooling or repeating words or the repetitive sounds which he might make. For this person then, better dental health may mean simply to be free from pain in the teeth and gums. For those who are only mildly retarded, oral health assumes a much deeper importance.

The social appearance:

The social values assigned to clean teeth and healthy gums by residents may make a distinct difference in a training program. As many attendants will testify, when these children learn to take pride in their appearance, this attitude is reflected in other self-care skills. The pleasure they feel when they learn to care for themselves makes all of the hours spent in their training worthwhile.

The children's appearance to visitors:

A smile tells the story of the level of care given to mentally retarded children in an institution. It can mean for a parent a full realization of the excellent health care provided by the attendants. On the other hand,

the smile of a child can reveal the untreated ravages of tooth decay and gum disease. A clean mouth with teeth which are properly cared for certainly suggests to parents that everything possible is being done for their child by the interested people about them.

Natural versus artificial teeth:

The current concepts of preventive dentistry stress the importance of keeping the natural teeth in good condition during one's lifetime. In the cases where artificial teeth are worn, daily oral care of the dentures is essential. Although most mentally retarded are able to wear these dentures, they are a poor substitute for natural teeth. Special diets are necessary in some cases.

It certainly takes more time and effort for the institutional dentist and his staff to keep a resident's teeth in a healthy condition. It is also a continuing challenge to the ward personnel to do their part in maintaining clean mouths by helping the children to brush their teeth after meals. But, so much trouble and eventual ~~discomfort~~ pain for the child is avoided by such an ~~program~~ effort, that there is no doubt of its merit. It is rather, a case of deciding to make some changes in existing routines.

"Neighborhood" living and oral care:

One of the outstanding gains in a good oral care program for the retarded is that of having a more pleasant breath. With so many persons living closely together in their cottages and wards, attendants and staff personnel report that their own attitudes are changed toward children who can be taught to be clean, both about their persons and in their mouths. (Attendants

reported that their own attitudes changed as the oral hygiene of the retarded changed for the better.)

Short-term benefits of dental health:

Perhaps the best way to sum up the immediate benefits to the mentally retarded in regard to their oral health is to list the gains which have already been discussed:

1. Permits happier, better adjusted children.
2. Makes visits to dental office more pleasant.
3. Adds to their confidence and security.
4. Allows their "oral life" to be a pleasurable one.
5. Improves their social appearance.
6. Makes their "neighborhood" relationships more pleasant.

Long term benefits of good oral health:

There are at least two distinct gains to be noted when a retarded person's mouth is maintained over a long period of time in a healthy state. The first is that less dental work must be done in the dental clinic. This clearly lessens the patient load on the busy dental staff and allows them more time to supervise programs which can prevent dental diseases. Too often dentists are placed in such a position of having such a load of treatment cases that the prevention of oral health problems must take a less important position. Prevention should come first, and treatment should be resorted to only when the benefits of good preventive dental care lapse. Treatment can be accomplished in the dental clinic, but prevention of dental diseases is a job which involves everyone.

Rehabilitation:

The second important thing about oral health viewed on a long term basis

concerns rehabilitation of the mildly retarded. The social and vocational demands of society are such that rehabilitating the mentally retarded person includes making sure his appearance to outside people is as normal as possible. This, of course, includes a healthy normal smile. This smile alone can go a long way toward helping a person to hold a job and be accepted in the community after he leaves the institution.

The long term advantage is that good oral health services through daily preventive care simply costs less. Constant dental neglect can be one of the costlier items in a person's life, but is particularly true for the mentally retarded.

The attendant's task in oral care in the ward:

For the severely retarded, toothbrushing can place a burden on attendants. One way such a task can be lightened is by organizing and carrying out a brushing schedule after meals. This will be discussed in detail in later chapters.

For the mildly retarded ambulatory residents, training in the proper use of their toothbrushes can be a rewarding experience for the children. Depending on the approach the attendant takes, a toothbrushing usually can be a pleasant experience for most residents. Examples will be given later which have worked well for attendants in cottage and ward care in other institutions. But in the final analysis, the ease with which each attendant puts these new ideas to work depends a great deal upon his own ingenuity.

It has already been demonstrated that the retarded child's training to help himself by dressing, and toothbrushing, helps to improve his inner

confidence. In succeeding chapters we would like to emphasize the real difference this daily care role makes to the residents when in the cottage life program.

The attendant or cottage parent represents an important key to the child's dental health. The key to the daily health of the child is the attendant. Proper brushing of the teeth, whether done by the attendant or by the resident himself under the supervision of the attendant, is essential for healthy gums and as an aid to preventing tooth decay.

Since the attendant sees each individual patient much more than does either the dentist or nurse, he is in a better position to observe dental problems in their early stages. Once he has made such an observation, he should report what he has observed to the supervisor or dentist. He should follow through by making these observations known to them as soon as possible, for example, by informing the next shift or leaving a written message. The proper person should follow through on the attendant's report. Observations are wasted if not reported and followed up.

After a dental visit for the patient, there may be some special instructions regarding his dental care. The dentist is usually interested in having the attendant ask questions if they do not understand these instructions. The attendants should report any difficulty they have in carrying out these instructions.

With regard to the routine dental care of residents, the attendant not only teaches, but also reinforces the teaching done by the dentist, nurses,

and instructors. He must be alert too, and report to the proper person the factors that make good dental care and health difficult to accomplish for his individual residents. Some of these factors might include; poor nutrition, stubborness or lack of understanding on the part of the retarded persons, and limited staff and dental facilities.

The team approach of the dentist, dental hygienist, nurses, supervisors, and attendants can spell success or failure for a dental health program. Close cooperation and two-way communications are essential for the team. They can best be accomplished by attendants doing the following:

1. Observing
2. Reporting observations
3. Asking questions
4. Implementing daily oral care

CHAPTER TWO:

ADAPTING THE ORAL HYGIENE PROGRAM TO THE INDIVIDUAL:

A. Ability of the Child.

Retarded children and adults vary a great deal from each other. Their age, personality, physical abilities and mental abilities all contribute to the way in which they can learn to care for themselves and become independent.

It is helpful to evaluate the retarded person's ability and readiness to properly clean his own mouth and teeth. This does not mean that he cannot be taught to do so at a later date. However, it will give the attendant a better appreciation of where to begin training and how much help to offer. From a dental care point of view, individuals might be classified under three categories.

1. Self-Care Category - This resident is able to brush his teeth by himself. He may have to be reminded to do so from time-to-time. Also, it is natural for even a person of normal intelligence to become sloppy in his personal care if he feels people don't care or notice his efforts.

2. Partial-Care Category - A resident in this category can carry out only part of the toothbrushing without help. He may do a fairly good job of brushing if he is supervised closely and reminded to be thorough.

3. Total-Care Category - A resident in this category is unable to assist in any significant way in brushing his own teeth. In most cases, young, and even severely retarded individuals can be taught to brush their own teeth with the proper training program.

B. Care of the Mouth.

The two most important parts of the mouth from a dental point of view are the gums and the teeth. The gums (gingivae) are the soft tissues

surrounding the teeth. Healthy gums should be pink and have a firm rubbery tone to them. Massage of the gums is of great value, particularly in older persons and in people with special dental problems. Brushing the gums with the toothbrush produces a stimulating effect on the flow of the blood and helps to keep them firm.

The normal child has a set of 20 primary teeth and a permanent set of 32. The purpose of the teeth is to bite, grind and chew the food taken into the body for good nutrition. Removal of food particles after each meal from around the individual teeth will assure a healthy mouth. The acute problems of decay and loss of natural teeth are directly related to daily care of the mouth and types of foods eaten.

Toothbrush procedures can best be carried out by a conventional toothbrush of the size, and texture recommended by the dentist to suit the individual mouth requirements. Many innovations such as automatic toothbrushes, water sprays, and suction devices are available for special problem cases.

A child likes to put his own toothpaste on the brush and can usually manage it quite well. Some institutions have been able to provide two toothbrushes for each child and use them on alternate brushings in order that they may last longer and do a more effective job.

C. Methods of Brushing.

Brisk scrubbing with the use of a rotary motion in manipulation of the toothbrush is considered to be the best method. However, the particular method used is often governed by the personal capability of the individual and the recommendations of the dentist. The mouth should be inspected after

brushing to be sure that the teeth and mouth are clean. Often medications given by mouth will stain the teeth. The dentist can best advise the parent or attendant whether or not corrective measures should be taken.

Many denture wearing residents can be taught to clean their own dentures daily. The dentist may recommend that dentures be removed at night and soaked in a dentifrice.

D. Practical Suggestions for Toothbrushing.

The young child may be motivated to brush his teeth by making it a "game". For example, one might sing-song the following:

"Brush up like a rocket,	(clean lower teeth)
Down like a plane,	(clean upper teeth)
Back and forth like a choo-choo train".	(clean across the chewing surfaces)

A smile and praise by the attendant should be given for a job well done.

Training a child to use a toothbrush should be done in small steps. For example, one might teach the following skills, one-by-one:

1. Hold the toothbrush with help.
2. Put toothbrush in mouth properly with help.
3. Make toothbrush strokes in mouth with help.
4. Independent brushing on command, "Brush your teeth".
5. Make toothbrush strokes in mouth by self.

Some institutions find it helpful to use a special colored liquid or tablet which discloses dirty spots (plaques) on the teeth. These spots can be shown to the child in a mirror and he can be instructed to brush particularly well on these locations. This technique will help correct bad habits of brushing

improperly and not reaching all of the parts of the mouth. The child's teeth should never be brushed when he is lying on his back. He may accidentally inhale some of the foreign particles into the lungs. It is better to use a non-foaming cleaner in the case of a severely handicapped child who cannot control his swallowing.

Don't expect the child to learn too rapidly. It takes patience and many repeated lessons on the same step before moving on to the more difficult stages. A daily routine should be established for brushing after meals. Each individual effort made by the child should be rewarded with a smile or praise until he learns to carry out the task. It may be easier to have the child seated during toothbrushing.

E. Diets.

The physician, dietician, and dentist should be consulted about foods which help to maintain healthy gums. Avoid sticky starches and high carbohydrate foods which encourage cavities. The drinking water should contain adequate fluorides in order to obtain the maximum enamel hardening which minimizes cavities.

Denture wearers may need some ground food to aid the digestion of hard-to-chew foods. Carrots, apples, and celery slices are excellent detergent foods for "after meal treats". These foods aid as "nature's toothbrush" to cleanse the teeth of sticky food. Candies and sweets between meals are harmful to the teeth and ruin appetites for balanced foods at mealtime.

CHAPTER THREE:

MANAGEMENT IN GROUP CARE:

A. Organization.

The purpose of this chapter is to help the ward attendant or cottage parent organize and set up an effective oral hygiene toothbrushing program on his ward. The dental care of large groups of children requires a program that is more organized and systematic than that of individual children. It is quite important that all levels of personnel be advised of procedures so that there is little confusion as to the jobs to be done. It is impossible for a supervisor to help implement a program if he does not know of its working parts. In an oral hygiene program in the cottage, it is necessary to assign responsibility. This not only gives the attendant more definite paths to follow but will eliminate duplication or omission.

Toothbrushing should be accomplished at a given time each day, preferably, immediately after each meal. Oral hygiene is not an additional duty but is an important daily routine that is necessary to maintain the health of each resident. Every time a child's mouth is cleaned, a potential disease is being prevented. It is as important as washing the hands, bathing, having clean clothing and a clean bed.

<u>Planning:</u>

1. Schedule a definite time for toothbrushing.
2. Assign a certain group of children to an attendant so that responsibility will be clear cut.
3. Plan so that lavoratory facilities can be used to the greatest advantage.
4. Use a minimum amount of toothpaste.

5. All children should be routinely checked to see if their teeth are thoroughly brushed.

B.

K. Self Help Group.

This group will be composed of the moderate and mildly retarded children. These children will usually attend academic school, be able to care for their personal needs, be cooperative, and require minimum supervision. They can usually brush their teeth but must be reminded to do so.

For the self help group toothbrushes and toothpaste may be kept by each individual or stored in a cabinet and issued at brushing time.

The teaching of mouth care to this group may be accomplished by the dental hygienist, attendant, and school teacher. The hygienist should coordinate all instruction to minimize teaching conflicting methods. It still remains the responsiblity of the attendant to suggest to the children that they should brush their teeth after each meal. If we can have them form the habit of brushing their teeth after each meal they will more than likely continue this habit upon leaving the institution. Another method of group care for self-help children is to place the toothbrushes in the bathroom along with toothpaste and have the children brush their teeth after each meal. Depending upon the dining room arrangement, letting one table at a time go into the bathroom may help relieve congestion at the basin. This method works well but does require a special rack to contain the toothbrushes, of which several types will be discussed later.

<u>Hints:</u>

1. Never cold sterilize toothbrushes.
2. Rinse brushes individually and air dry.
3. Replace all "frayed" toothbrushes.
4. Use a very small amount of toothpaste on each brush.

5. Cut name on each brush handle by using an electric pencil (Dremel) and then go over name with a good water-proof marking pen.
6. The toothbrush cabinet should be well ventilated with no brushes in contact or dripping on one another.
7. Mirrors should be available so that the children may see their teeth as others see them. Stress the pleasant taste of a clean mouth, pretty white teeth, reduction of disease (decay), and a pleasant breath. Brushing will save their teeth and make a pretty smile. Oral hygiene should be presented to the children as a pleasant and necessary routine health measure.
8. Posters, either purchased or made by the children, displayed in the ward will stress the importance of tooth-brushing.
9. Compliment and praise the children for a thorough brushing. If the child can accept the toothbrushing time as a regular and never failing act ~~as his~~ following meal time, he will grow to accept it as routine measure with little or no thought of neglecting it.
10. Don't overlook the educational value of movies, slides, puppet shows, flannel boards, and most of all, setting a good example. Let the children see <u>you</u> brush <u>your</u> teeth <u>regularly</u>.

B. Partial Care Group.

The partial care patient is generally moderately retarded. Close supervision and assistance is usually required to perform the routine tasks of every day living.

The resident will require assistance from the attendant if the teeth are thoroughly brushed. Many times, if this child is asked to brush his teeth, he will attempt it and usually brushes only the front teeth and some of the biting surfaces.

Hints:

1. Designate a person responsible for the daily chore of toothbrushing activities for each group of children. This is effective in pin-pointing both interested and disinterested workers handling groups of children.
2. Always be aware of the effectiveness of "routines" of doing the toothbrushing after meals in a prescribed pattern and time each day. These children fit best into a "pattern of daily living activities".
3. If lavoratory space is limited, schedule the groups for toothbrushing.
4. Have special individual instruction in the use of the toothbrush for the residents to keep their skills and performance at their best.
5. Examine each mouth for cleanliness.
6. Teach the art of completing a big job by dividing it into small tasks properly completed.

7. Always be alert to suggestions for doing a phase of the toothbrushing a better way; try every new idea - we can learn just as much from failure as success.

C. Total Care Group.

For the total care patient the electric toothbrush is superior to the ordinary brush. The initial investment is more, but the improvement in oral hygiene certainly justifies it.

The brush portion of the electric toothbrush does not lend itself to the conventional toothbrush storage rack. Our experience indicates that the Sunbeam electric cordless brush has been very satisfactory since its introduction at our school two years ago. The brush protion is mounted in holes drilled partially through a removable board which is stored in a cabinet located on each ward. The power handles are stored in their electric recharging bases on the lower shelf of the cabinet. At toothbrushing time, the board with brushes mounted, is removed from the cabinet along with a power handle and is taken to either the bedside or lavoratory.

Generally, the toothpaste should still be rinsed from the mouth in order to help wash away food particles in the teeth. If sufficient clean towels are available so that no towel will be used on several patients, the inside of the mouth may be wiped and the face cleaned if necessary. Experience in dispensing the proper amount of toothpaste will keep this to a minimum.

Hints:

1. Assign each attendant a certain group of children to care for---usually about 10 to 15 children.

2. Each child has his individual brush with his name on it.
3. Brushes are rinsed and cleaned individually to minimize cross contamination.
4. Mouth care can be performed at bedside or during other toileting activities in the lavoratory.
5. Your patients will be healthier and happier when their mouth is routinely kept clean.
6. For the total care bed patients, use a wheeled cart. One can be made by adding rubber wheels to a night table. Arrange the brushes in their sequence of use and preload with toothpaste. This reduces wasted motion and will considerably speed up the process. If all toileting procedures are preformed while the patient is bathed, the toothbrushing procedure can be done at this time. This will eliminate the cart and brushing in bed.

CHAPTER FOUR:

The purpose of this section of the manual is to present some of the more common mouth problems and how to recognize them. No attempt will be made to explain their treatment, but merely state some of their causes and ways to recognize them. Many of these conditions should be referred to your dental department for treatment. It is hoped that the following pages will help you give better care to your residents.

It is suggested that you inspect the mouths of the residents under your care as you assist them in their daily oral hygiene. Many of these residents will not know when something is wrong and it will be up to the attendant to help him with this part of his total health. A quick look once a day at the teeth, gums, tongue, cheeks, and roof of the mouth of these residents will help you discover conditions that may need attention before too much damage has been done. It is suggested that the retarded who have no teeth be inspected at least every few days. Even though they have no teeth, they still may have dental problems. If they are denture wearers, it is important that both partial and full dentures be removed during an oral inspection. You are urged to look carefully and completely each day.

In order to be able to recognize a mouth condition that is not normal, or may need attention, you must first be able to recognize the normal.

The teeth may range from a dull white to a yellowish-gray in color and should not be covered with stains or any other material. The teeth, themselves, should come together in such a way that none of them are greatly out of line and are in harmony with the face and jaws.

To recognize healthy gums, there are two important thing to observe---color and shape. The color of the gums near the teeth should be a nice pale pink and the gums should be firm to touch. Portions of the gums located farther away from the teeth have less pinkness and many small blood vessels may be observed.

There are several things to remember about the shape of the gums. Where the gums actually come in contact with the teeth, the gums should be very thin. There is also gum tissue filling all the space between the teeth except in widely spaced teeth. There should be long cone-shaped indentations in the gums paralleled to the root surfaces. These indentations make a spillway for food while it is being chewed. The gums should meet all the teeth at about the same level; that is, the gum line should be about the same for all teeth.

SWELLINGS:

Normal: There are many kinds of swellings that can be present in the mouth. Not all swellings mean that there is something wrong, but many do. It is quite normal to have a swelling of the gum around a tooth that is just coming into the mouth. These swellings do not last long and the gums usually appear healthy. If the gums do not appear healthy, there is a problem even with erupting teeth.

Bony: Another type of swelling that you may notice is not actually a swelling at all, but is an enlargement of the bone under the gums. These enlargements are usually found in the center of the roof of the mouth and on the inside of the lower jaws. These swellings are called tori and rarely cause any trouble. Since they extend into the mouth more than other structures, they should be observed for ulcers.

Drug: There is another swelling that is not normal, but is very common in an institution. These swellings are actually enlargements of the gums around the teeth of residents who take some of the seizure-control drugs. These swellings are certainly not normal but do not always require treatment by the dentist. The treatment of this condition varies with each dental department and you should talk with your dental staff about each individual resident. The appearance of these gums is one of a somewhat rounded swelling of tissue between each of the teeth and is found most often in the front of the mouth. The amount of swelling can vary from a small amount to enough tissue to completely cover the teeth. The color varies from a healthy pink to an infected red.

Injury and Infection: There are many types of swellings that do need immediate attention. These are the swellings caused by accident, injury, infection, or new growths. There can be swelling with and without fever. Both of these types of swellings occur in one place and are not usually found over the whole face or mouth like the swellings caused by drugs. These swellings are very often tender to touch and can be quite painful. They may be large rounded swellings with enlargement of the face or a small pin point area on the side of the gums. The latter are called "gum boils". They may also stick out from the rest of the gums around it like an extra piece of tissue. It may come up out of the gums following a tooth removal and be quite red. This type can be any color from normal pink to infected red and even yellowish if there is pus present. Many of the swellings are first noticed in the mouth and if detected early, can save a child much discomfort. Facial swellings are quite painful and can involve an area from the lower neck up to and sometimes closing an eye.

DEPOSITS:

Deposits on the teeth are another sign of trouble. Clinging food particles caused by incomplete toothbrushing can be the start of serious gum disease. This food that clings to the teeth not only looks unsightly but produces an odor as it decomposes. It also acts to speed up tooth decay. This material most often starts as a soft white covering on the teeth and can easily be brushed off. Another deposit on the teeth is a hard calcium-like material called "tartar". This can be kept to a minimum by good daily tooth-brushing. These deposits come from the saliva in the mouth and the amount and speed of deposit varies with each child. Those children who do not swallow often have a big problem with tartar formation. It is important that these deposits be kept to a minimum since they cause gum irritation and if left long enough can actually cover the entire tooth. Over long periods of time this tartar can cause gum disease by being a constant irritant. The tartar will form at the gum line and the irritation will cause the gums to be enlarged. This enlargement makes further irritation more probable. The tartar can eventually be deposited so far down on the root of the tooth that the gum shape is lost, bone support of the tooth is lost, the tooth becomes loose and the tooth is lost or must be removed. Most of the bleeding problems of gums involve some part of the above process. More teeth are lost because of gum disease than are lost due to decay. It is important that you work very closely with your dental department in your oral hygiene programs to try to keep the amount of gum disease and tooth decay at a minimum. In an institution, the attendant is the most important person as far as the prevention of dental disease is concerned.

TOOTHACHE:

A toothache is a condition of pain arising from disease of the pulp

(commonly called the nerve) inside the tooth or the tissues surrounding the tooth. The term toothache covers a lot of territory since it is used to describe many painful conditions of the mouth. Many times there actually is a toothache but in many instances the pain arises from other causes. Toothaches, ulcers, sore spots, gum disease, burns, and many other things are often described as a toothache. All, however, do need the attention of the dentist. It is quite important for the attendant to give the dentist as much information as possible about the pain. This information should include such things as the location of the pain, the length of time the pain has been present, the presence or absence of fever and any other information that might be available. Many times a child will tell about or point to an area of the mouth in the presence of an attendant, but will not tell the dentist anything. Providing your dentist as much information as possible will give him a head start in locating the real trouble.

MOUTH AND LIP SORES:

All mouth and lip sores need the attention of the dentist. Many will require little or no treatment but should always be seen by the dentist. Some of these mouth and lip sores could eventually become small mouth cancers and their treatment should be prescribed by the dentist. The incidence of mouth cancer is low but because of its seriousness should always be kept in mind.

There are two major types of ulcers. There are the single ulcers and the multiple ulcers. Of these, the single ulcers are most common. These are usually found in the crevices of the gums or on the lips and are commonly called cold sores. These ulcers may be frequently found in our female residents during their monthly cycle. Many of our children spend a great deal of time in the sun and get lower lip ulcers very easily. These are actually sun burns but should

always be reported. When a resident is taking some of the tranquilizers, his skin has a tendency to be even more sun sensitive. Residents who are prone to be sun-sensitive should be encouraged to wear a wide brimmed hat when they are out in the sunshine. Another single ulcer for which we know the exact cause is an ulcer caused by the chewing of the numb lip or cheek following a dental appointment. These ulcers have a tendency to be quite large, swollen and in general appear serious. These ulcers will heal very nicely in a week or two but should be checked often by the dentist to prevent infection of the ulcer.

Other ulcers are usually multiple and scattered throughout the mouth. These ulcers have many causes, among them being viruses, general body upset, and indirect reactions to drugs. These children are usually quite ill, have a fever, do not eat or drink, and have a very sore mouth. The child should be seen by the dentist and the physician so that the real cause of these ulcers can be treated and the general confort of the child maintained. One of the most important things to remember during this time is not to give the child anything to eat or drink that is either hot or spicy or contains fruit juices. These foods will make the child much more uncomfortable.

INJURY:

Injuries to the mouth may also occur in our institutions. Even the slightest injury to the mouth should be checked by the dentist even if there is no apparent damage. Sometimes you can see no damage, but a tooth could have been made non-vital (dead) as a result of the blow. Fractured teeth should be seen immediately by the dentist if he is going to have much success in saving the tooth. If the tooth has been completely knocked out of the mouth and can be found, it should be wrapped in a wet sponge or cloth and brought to the dental clinic with the child. Again, speed is important. There is very little hope for a severely

broken tooth if treatment is not started immediately after the tooth was fractured. Cuts of the lips, tongue, and cheeks should be seen so that the wound can be cleaned and sutured if necessary. These accidents are sometimes seen in the medical clinic, but the dental clinic should be notified to check the inside of the mouth. If there is much bleeding as a result of the accident, pressure with a sponge against the area will help control the bleeding until the child can be seen in a clinic.

SPECIAL MEDICAL PROBLEMS:

Congenital or Acquired Heart Disease: We are concerned mainly with children who have had damage to their heart valves from a case of rheumatic fever or who were born with some type of heart malformation. These children are serious medical problems insofar as trying to keep them from suffering further heart damage. These valves can be damaged by bacteria (germs) getting into the blood and attaching to the heart valves and growing. With this in mind, we try our best to keep these children free from any kind of infection. For this reason, we give the children some kind of antibiotics during dental treatment to kill any bacteria that might get into the blood. It is most important that these drugs be given exactly as indicated. Oral hygiene for these children should be perfect and no bleeding should occur during toothbrushing since this would allow bacteria to enter the bloodstream. Extra daily care should be given to these children to protect them from further heart damage.

DIABETES:

Diabetes is a disease caused by a defect in the amount of insulin the body produces. It is controlled by exact regulation of food intake and insulin given. It is important that diabetic children have clean mouths since good

oral hygiene helps minimize the oral problems of diabetes. It is common for children with diabetes to have slightly loosened teeth from time to time, but this can be kept to a minimum by good daily oral hygiene. Diabetic children who have had oral surgery should be watched closely since delayed healing is experienced by these children.

KIDNEY DISEASE:

As in diabetes, it is important for children with kidney disease to have excellent oral hygiene. The child with a very clean mouth has a better chance to avoid further kidney infection than does the child with an unclean mouth.

TUBERCULOSIS:

The oral hygiene of a child with tuberculosis should be just as good as that of any other child. These children are often neglected but should not be. One should wear a mask, gloves and gown when providing hygiene to a child with active tuberculosis. Special care should be taken to keep all toothbrushes and materials separate.

NOTHING BY MOUTH (NPO)

This also includes children who are tube fed and do not take food through their mouths. The mouth should be kept moist by using wet sponges inside the mouth and applying vasoline or mineral oil to the lips as they become dry. A child with dry lips is a very uncomfortable child and should not be left that way.

In this section of the manual we have tried to point out a few things for you to remember in your daily contact with the child. We hope that you will remember and look for some of the things that we have discussed and that they will enable you to give the children under your care better oral health.

APPENDIX A.

SOURCES FOR ADDITIONAL READINGS AND MATERIALS:

APPENDIX B.

TOOTHBRUSHING AND THE MENTALLY RETARDED:

Question: WHAT HAPPENS IF TOOTHBRUSHING IS NEGLECTED?

Answers: The mouth will become a place of infection, soreness and diseases that will stop the child from eating and affect his or her general health and development.

Dirty teeth and "foul breath" can be a serious reflection upon the care of the child by the responsible person or persons.

Neglect of the mouth and teeth will cause pain and expensive treatment services.

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Question: WHAT ~~IS~~ THE FIRST STEPS IN PLANNING TOOTHBRUSHING?

Answers: A realistic determination of the child's ability to learn how and to brush his teeth successfully. A parent or interested person may have "hopes" for certain achievements by the child, but always be realistic in your appraisal - time and experience can alter the present evaluation - upward or downward.

Select the appropriate classification as to self-care skills that the individual possess; Remember that each child will have his or her own potentials.

I. Educable Child with Self-Care Skills
   This child can use a toothbrush by himself.

II. Trainable Child with Self-Care Skills
   This child is capable of receiving instructions in toothbrushing in a classroom and will be self-skilled when taught how to brush the teeth.

III. Child Without Self-Care Skills Potential
   This child will require much more than supervision - often total assistance - in carrying on the toothbrushing routine daily.

Next, organize the toothbrushing activities to suit the child or children inaccord with their classifications.

Consult with the family dentist or hygienist or dental staff members for specific details on how best work as a "TEAM" to have a practical and effective dental prevention program of toothbrushing daily.

Question: WHAT ARE SOME SUGGESTIONS FOR A TOOTHBRUSH ROUTINE?

Answers: First, organize a 4 step plan of action.

1. Preparation for toothbrushing after meals.
2. Timing the toothbrushing and management.
3. Supervision and assistance in toothbrushing.
4. Clean-up duties after toothbrushing.

Develop your daily routine of "steps" to make the duty or job successful and within a controlled time factor.

Remember one important rule - children best fit into a routine of habits - SAME TIME - SAME PLACE - SAME ACTIVITIES DAILY - this is especially true in the management of a group of mentally retarded children daily.

Question: HOW TO PREPARE FOR TOOTHBRUSHING?

Answers: Before the meal, place toothpaste on the toothbrush; place the toothbrush in a convenient location for use IMMEDIATELY AFTER EATING.

Note: Powered toothbrushes or water-flushing cleaning units may be used instead of the conventional toothbrush. Some are more acceptable by the child than use of the toothbrush would be. Consult with the dentist or hygienist for advice.

Question: TIME AND PLACE FOR TOOTHBRUSHING?

Answers: The best time to clean the mouth is IMMEDIATELY AFTER EATING. In the home or school, it can be performed SEATED either at the dining table or bathroom; if a mirror is available, it helps the child do a better brushing because he or she can see to brush.

Note: Powered cleaning units or water-flush cleaning units will require electricity and water sources to operate.

Even a glass of water after meals is a good flushing method of getting the loose food particles out of the mouth after eating; swallowing the water is not difficult.

Question: WHAT ARE THE SUPERVISION AND INSPECTION DUTIES?

Answers: A responsible person or parent is essential for tooth-brushing activities after meals for the following reasons:

1. To be sure that the child or children DO BRUSH THEIR TEETH.
2. To assist in brushing when necessary to clean the mouth adequately.
3. To constantly MOTIVATE THE CHILD to do his or her BEST and to PRAISE THEIR EFFORTS DAILY.
4. To use a tongue blade to reflect the cheeks to look and see that all food particles are gone; Also, look for unusual signs of dental problems.
5. To re-enforce good brushing by making the child re-use the toothbrush again if he fails to clean the mouth.

Question: CLEAN-UP DUTIES AFTER TOOTHBRUSHING?

Answers: Wash the "used" toothbrush to clean off all paste and food thoroughly in soapy water.

Sterilize the toothbrush in the manner your dentist recommends.

Dry toothbrushes after use thoroughly; have more than one toothbrush per child in order to have a clean dry toothbrush for the next meal.

Store each toothbrush along with supplies and away from accessibility of the children.

Replace toothbrushes with worn bristles and broken handles, etc.

If possible, keep the child's name or identification on their toothbrush; in large group toothbrushing activities this is difficult to do.

Note: The Broxodent brushes are autoclaveable; Conventional brushes are not boilable.

Question: WHAT SPECIAL INSTRUCTIONS TO FOLLOW?

Answers: Working with one child on a person to person basis is the best method, but this is not always possible when a person

has a large group of children to manage at the same time.

Let each child do as much for themselves as possible and keep within the budgeted time for toothbrushing.

In group toothbrushing, play a game of musical song in teaching them toothbrushing:

Example: "Brush up like a rocket
Down like a plane
Back and forth like a
choo-choo train." (to a simple tune)

In group toothbrushing, work as a TEAM with the better children (those who do a good job brushing themselves) helping the adult to care for the "helpless child".

Bedfast children can have their teeth brushed in bed, if you will ELEVATE THEIR HEAD during the cleaning and stabilize their heads with an arm wrap grasp.

Use a small size medium or soft bristle toothbrush with straight handle of strong plastic.

Place a minimum of toothpaste or dentifrice on the toothbrush; Too much paste will result in the child "EATING THE PASTE OFF THE BRUSH" and more difficult cleaning the toothbrush later.

When children have DENTAL APPLIANCES - remove them, if possible, and soak them in a special denture cleanser solution in a drinking glass.

Discourage "BETWEEN-MEAL SNACKS OF CANDY" and SMOKING OR CHEWING TOBACCO EXCESSIVELY.

Protect the storage of clean toothbrushes in a room with a lockable door; unprotected toothbrushes and dental supplies will be lost or ruined by a mischievious child often.

Whenever possible, have all the good toothbrushers finish first with only supervision of the adult.

In group toothbrushing, the adult should use disposable supplies, i.e. face masks, gloves, tongue blades, towels, etc. to EXAMINE INSIDE EACH CHILD'S MOUTH after they finish brushing their teeth - for proof that the teeth are clean and also, observed for any SIGNS OF DENTAL PROBLEMS that may be present and not reported by the child.

When a child conplains of "toothache" or injurty to the mouth - if the adult sees signs of dental problems - send a massage to the dentist with the details:

NAME OF THE CHILD; HIS OR HER PROBLEM SIGNS

Work as a "TEAM" - the Adult Toothbrusher, Dental Hygienists, Nurse Supervisors, Dentists and Physician to clearly communicate with each other for the common good of the child.

Question: <u>TEACHING TOOTHBRUSHING TO THE MENTAL RETARDATE?</u>

Answer: How can society expect a child to develop his or her personal care skills without some formal instructions. The adult mental retardate, without training as a child, is still as unskilled as a child. Age alone does not teach.

Question: <u>WHO SHOULD RECEIVE TOOTHBRUSHING TRAINING?</u>

Answer: Any child that is diagnosed as TRAINABLE/EDUCABLE by competent Educators and Psychologists.

Question: <u>WHO TEACHES TOOTHBRUSHING SKILLS?</u>

Answer: There is growing evidence that Special Education Teachers are best qualified in classroom settings with modern teaching aids; the Parent, Dentist, Dental Hygienist, Dental Assistant, Nurse, Attendant, etc. all help as MOTIVATORS for the child to lean toothbrushing skills.

Question: <u>WHEN IS TOOTHBRUSHING TAUGHT?</u>

Answer: At as early age as possible for the child to fit into a classroom environment or when the parent can get the child to cooperate.